

By Sergeant First Class Jeffrey A. Mubarak

he modern-day fire supporter must use troop-leading procedures (TLP) to systematically complete all preparations for light company defensive operations in a timely manner. Priorities of work, when combined with TLP, organize and unify the efforts of maneuver forces and fire support.

Experiences at the Combat Training Centers (CTCs) have proven that forces in defensive operations must develop effective, integrated, executable fire support plans in time-constrained environments. This article provides techniques for incorporating priorities of work into the the nine TLP to manage the limited time available to prepare for the company defense. The performance checklist in this article is intended to help the light force develop a fire support standing operating procedures (SOP) for the company defense (Figure 1 on Page 32).

1. Receive the warning order (WARNO). After receiving the WARNO, the company fire support officer (FSO) and fire support NCO (FSNCO) begin planning fire support with the company commander. While the company commander is responsible for integrating fire support and other battlefield oper-

ating systems (BOS) into the fight, it's the FSO who must develop the fire support plan to support the company.

The FSO and FSNCO begin parallel planning when they receive the WAR-NO from battalion. The FSO can't afford to wait for the battalion operations order (OPORD) to be issued to begin preparing for the defense. To maximize the time available, the FSO informs the fire support team (FIST) of the upcoming mission, issues instructions to the FSNCO and directs the forward observers (FOs) to conduct pre-combat checks (PCCs) and resupply missing items. While the FSO attends the battalion OPORD briefing, the FSNCO develops a hasty fire plan to cover the company's movement into the defensive area of operations (AO) and completes the PCCs.

**2. Receive the mission.** The battalion OPORD describes how the company supports the battalion's mission. The battalion fire support products provide the company FSO fire support guidance, the assets he has available and essential fire support tasks (EFSTs) his team will be responsible for accomplishing. The FSO gets the fire support products from the battalion fire support element (FSE).

Before departing the OPORD briefing, the company FSO must understand the battalion commander's intent, concept of the operation and the fire support guidance to prepare an effective, integrated and executable fire support plan in a timely manner. Top-down fire planning requires fire support personnel clearly understand the mission, intent and concept of the operation of higher headquarters two levels up.

Once the battalion OPORD briefing is complete, the company commander and FSO begin developing a tentative time line to accomplish the EFSTs, for example, registering and adjusting fire support assets onto the targets. The FSO submits requests for information (RFIs) and the company mortar section's current status to the battalion FSE.

The FSNCO completes the PCCs and pre-combat inspections (PCIs) before the company WARNO is issued. The PCIs identify for the FSO the FIST's capabilities and limitations for the operation.

**3. Issue a WARNO.** The FSO participates in the company warning order. The FIST personnel and the mortar section leader receive a briefing on the mission, operations in the company sector and assets available to the company.

The FSO issues the tentative time line cataloging all tasks to be completed in sequential order.

**4. Make a tentative plan.** The FSO updates the company's mortar section status and FIST status. The FSO must understand his units' responsibilities and allocations to accomplish the mission. The company commander must provide clear guidance for fire support. FM 7-10 The Infantry Rifle Company and FM 6-71 Tactics, Techniques and Procedures (TTP) for Fire Support for the Combined Arms Commander provide doctrinal explanations of fire support guidance.

The FSO merges the company and battalion fire support guidance to develop the company EFSTs, the observation plan and the ammunition management plan or attack guidance matrix (AGM). These three products provide the framework for the fire support plan. When developing the plan, the FSO includes all fire support assets available to the company, including company mortars for the dismounted fight. The plan also provides for refining targets dictated by the higher headquarters.

To help in withdrawals and counterattacks if the company's defensive positions are overrun, the FSO plans mortar fires forward of, on top of and behind

## 1. After Receiving the WARNO from Battalion:

FSO and company commander begin planning early movement, positioning and security.

FSNCO begins PCC/PCI and resupply.

FSO informs the FIST and mortar sections of the new mission.

FSO, FSNCO or FOs develop the hasty fire plan for movement to the company defensive AO.

#### 2. Receive the Mission:

FSO updates the friendly and enemy situations.

FSO determines the assets available, allocations and FSCMs.

FSO obtains the battalion TLWS, FSEM and AGM.

FSO understands the battalion/task force fire support plan and how it affects the company.

FSO identifies the specified and implied fire support tasks for the company.

FSO briefs the commander on the above tasks.

FSO receives the commander's restated mission and guidance for fire support.

FSO identifies the tasks to be completed and develops the priority of work in preparation for the defense.

FSO reports the FIST and mortar status to the battalion FSE.

FSO or FSNCO requests mortar ammunition through the company XO.

FSO begins making tentative plans with the company commander.

FSO or FSNCO submits requests for information to the battalion FSE.

FSNCO completes the PCC/PCI.

#### 3. Issue a WARNO:

FSNCO, FOs and RTOs receive a briefing on the company mission and AO.

FSO issues a WARNO to the FIST and mortar section leaders on fire support-specific issues.

FSO issues a tentative company fire support time line, including all critical tasks and the priority of work.

# 4. Make a Tentative Plan:

FSNCO attaches the operations and obstacle overlays to the map.

FSO, FSNCO, FOs and mortars are involved in the planning process.

FSO and FSNCO list the specified and implied tasks to be accomplished by fires.

FSO and FSNCO develop the company EFSTs.

FSNCO plots all battalion targets.

FSO and FSNCO determine what part of the commander's quidance the battalion targets account for.

FSNCO plots targets on the overlay to account for the remaining commander's guidance.

FSO and FSNCO plan fires on and behind the company positions.

FSO advises the commander if the tasks can be accomplished with the available assets and allocations.

FSO and FSNCO determine the Task, Purpose, Specific Methods and Effects desired for each target.

FSO and FSNCO develop the TLWS and FSEM.

FSNCO coordinates the times to register and adjust indirect fires in support of the company mission.

FSO coordinates with adjacent units and the supported unit to refine and finalize a backward time line tailored to the company and battalion time lines.

FSO disseminates the time line to subordinate units and higher headquarters.

FSO and FSNCO develop the observation plan and AGM with the mortar section leader.

FSO and FSNCO develop the scheme of fires for the company.

# 5. Initiate Movement:

FOs maintain battlefield observation.

FSO or FSNCO coordinates the gains/losses of FOs due to task organization.

FSO, FSNCO and FOs conduct map terrain analysis in preparation for the leader's reconnaissance.

FSO or FSNCO requests Met messages for the mortar section every two to four hours.

# 6. Conduct Reconnaissance:

FSO accompanies the maneuver leaders on recon.

FSNCO ensures the FOs accompany their platoon leaders on recon.

FSO and FOs verify the target locations, trigger points and observation plan.

FSO and FOs refine the targets to within 10 meters.

FSO and FOs identify the observer positions (primary and alternate).

FSO provides instructions to the FOs (movement, security, etc.)

FSO, FSNCO and the mortar section sergeant identify the mortar firing positions (primary and alternate).

FOs mark the trigger points for ease of identification.

## 7. Complete the Plan:

FSO, FSNCO and FOs modify the plan, as necessary, and inform key leaders of the changes.

FOs establish the triggers for day and night operations.

FSO transmits the locations of friendly positions and TLWS to battalion FSE.

FSO completes the ammunition management plan for the company mortars (attack criteria, AGM, number of rounds for adjustments and number of rounds for FPF).

FSO receives approval for the scheme of fires.

FSNCO briefs the FIST on the scheme of fires.

FSO rehearses and briefs the commander on the fire support plan.

FSO requests a censor zone over the company mortars, if the company is the forward element in the battalion.

FSO or FSNCO receives Met messages and (or) updates them every two to four hours.

FSO and FSNCO completes the TLWS, FSEM and fires portions of the company OPORD.

## 8. Issue the OPORD:

FSO briefs the fires paragraph of the OPORD.

FSO ensures the mortar section leader and FOs attend the company order, if possible.

FSO disseminates all fire support products to the platoon leaders (FSCM, TLWS and AGM).

FOs brief the fires paragraph to the platoon's key leaders; if the FO is positioned forward, the FSO or FSNCO briefs.

FOs back-brief fires when their platoon leaders back-brief the company commander.

### 9. Supervise:

FOs register the company mortars and other necessary assets.

FOs adjust their indirect fires assets onto the priority targets.

FSNCO ensures the mortar section receives concurrent Met messages every two to four hours.

FSO conducts the fire support rehearsal (include FOs, FIST headquarters personnel, mortar leaders and key leaders from the maneuver element, the latter if possible).

FSO employs vehicles to rehearse the mounted target triggers.

FSO lays the mortar onto targets as addressed during the rehearsal.

FSO and FSNCO integrate fire support personnel into the company and battalion rehearsals.

FSO continues to refine targets and triggers for the obstacle emplacement, defense of the TAA, etc.

FSO continues to update and coordinate changes to the plan, as necessary.

All personnel complete the construction of their survivability/fighting positions.

#### Legend: **FSCM** = Fire Support Coordinating Measures PCC = Pre-Combat Checks AGM = Attack Guidance Matrix **FSE** = Fire Support Element **PCI** = Pre-Combat Inspections AO = Area of Operations **RTO** = Radio-Telephone Operator **FSEM** = Fire Support Execution Matrix EFSTs = Essential Fire Support Tasks FSNCO = Fire Support NCO TAA = Tactical Assembly Area FIST = Fire Support Team FSO = Fire Support Officer TLWS = Target List Worksheet FO = Forward Observer WARNO = Warning Order Met = Meteorological FPF = Final Protective Fires OPORD = Operations Order XO = Executive Officer

Figure 1: FSO Troop-Leading Procedures for Planning and Preparing for Light Force Defensive Operations. In the event that the FSO is unavailable, the FSNCO must be prepared to accomplish all FSO tasks. (Information taken from FM 6-20-10 The Targeting Process, FM 6-20-20 Fire Support at Battalion Task Force and Below, FM 6-30 Observed Fire, FM 7-10 The Infantry Rifle Company, FM 7-90 Tactical Employment of Mortars, FM 5-103 Survivability, FM 101-5 Staff Organization and Operations and "Fire Support for Brigade and Below," a US Army FA School White Paper, May 1998.)

company positions. The FSO coordinates with the company mortar section sergeant and establishes the number and type of rounds to be fired on planned targets and for adjustments. The amount of mortar ammunition on hand and the commander's fire support guidance influences indirect fire adjustments onto targets, attack criteria and the AGM. Dismounted enemy, armored and softskinned vehicles and final protective fires (FPFs) are considered when allocating ammunition.

Early in planning, the company FSO coordinates a time for adjusting indirect fires with his supported element, adja-

cent units and higher headquarters. The FSO refines and finalizes the company's fire support time line, ensuring it coincides with the battalion's time line and accomplishes all essential tasks.

The following are essential tasks that always are present in the company fire support time line in the defense: register mortars, adjust indirect fires onto priority targets, rehearse fire support, conduct the fire support coordination meeting and establish the target refinement cutoff time. (The FSO's company target refinement cutoff time must meet the battalion FSE's target refinement cutoff time.) The FSO's coordination

meeting ensures the fire support plan is integrated and synchronized with the obstacle plan and company maneuver plan.

Once approved by the company commander, the fire support time line is disseminated to all subordinate elements and the battalion FSE.

**5. Initiate movement.** The FOs maintain battlefield observation and continue to prepare for the leader's reconnaissance patrol by conducting a detailed map study of the platoon and company area of operations. The map recon identifies possible dead space, mounted and dismounted avenues of approach, and other areas of concern.

The FO and platoon leader confirm the areas of interest identified by the map recon during the reconnaissance patrol.

The company FSO coordinates task organization changes, such as a combat observation lasing team (COLT) operating in the company sector or the FOs being attached to other companies.

**6. Conduct reconnaissance.** The FSO accompanies the company commander and platoon leaders on the leader's reconnaissance patrol. Whenever possible, the FOs accompany their respective platoon leaders. In a time-constrained environment, parallel planning occurs at all possible levels, to include the platoon level. During the leader's reconnaissance patrol, the FSO and FOs identify observer positions (OPs), refine the planned target locations to within 10 meters using a precision lightweight global positioning system receiver (PLGR) or other precision target location devices and verify the task and purpose of each target.

Instructions to the FOs include all information pertinent to the observer's assigned EFSTs. The FSO integrates maneuver observers into his company's observation plan, thus multiplying the number of eyes available to observe the battlefield and help employ fire support assets. However, he uses trained observers for brigade- or battalion-directed obstacles. When possible, the FSO releases the observers to establish their OPs and develop triggers, once they understand their assigned tasks, the communications net, the company scheme of maneuver and the assets available.

The FOs identify the trigger for each target in accordance with the method described in FM 6-30 Observed Fire Procedures, Chapter 5, Page 5-23, Sec-

tion IV. During defensive operations, a trigger is normally a spot on the ground. This section of the manual offers a simple sequence for engaging moving target and developing trigger points. The formula for determining the trigger point is "transmission time + the time of flight x the expected speed of the target in meters per second = the distance from the intercept point or planned target location." Triggers are developed for both mounted and dismounted targets.

One observation method is to position the observer forward of friendly troops to trigger the target as the enemy passes the observer's location. Another means is coordinating with forward maneuver units or maneuver listening posts/OPs (LP/OPs) to observe and trigger targets.

The observer marks the trigger for day and night operations. Infrared chem lights are a good marking tool for night operations. Engineer tape nailed to the observer's side of a tree works well for daylight missions.

The mortar section's firing position is identified during the leader's reconnaissance patrol. Depending on the mission, enemy, terrain, troops and time available (METT-T), the FSO selects the mortar firing positions using the"1/ 3, 2/3 Rule." This means the mortars are positioned to fire one-third of their range behind the company position and twothirds forward of the company position. This technique allows the company to withdraw to an alternate or supplementary position and be covered by the mortar section without displacing the mortars. (See Figure 2.)

7. Complete the plan. After the leaders' reconnaissance, the FSO should understand how the commander will establish the company defensive posi-

tion. He sends all friendly element and FO locations to the battalion FSE as the company begins occupying positions. The FSO also informs the battalion FSE of the company observation plan for all FOs and maneuver observers. Maneuver observers can trigger targets if they understand the task, purpose, method and effects desired for their targets and have a workable plan for communications. If the company defensive sector is forward in the main battle area, the FSO requests a Q-36 Firefinder radar censor

zone over the company mortar position. This should keep friendly counterbattery fires from engaging the mortars in the heat of the battle.

If ammunition and time are available, then the mortars should register as soon as possible. In a time-constrained or ammunition-constrained environment, registering and adjusting company mortars onto priority targets may not be possible. If registration is not possible, a Met message increases the accuracy of the mortars. The FSO has requested a Met message and updates every two to four hours for the company mortars. The mortar section enters its Met update into its mortar ballistic computer (MBC).

The company mortar registration point is a minimum of 1,500 meters from the mortar position. The registration point is center of mass of the company sector and forward of friendly troops.

The mortar registration point is only valid for targets 800 meters over, 800 meters short of, 400 mils to the left of and 400 mils to the right of the registration point. Any targets outside of the valid registration area require an additional registration point. These considerations could require the FSO to adjust ammunition requests, tasks for mortars and the company fire support time line. (See Figure 3.)

Once the observers are in position, they conduct communications checks with the FSO, other FOs, the company mortar section, the battalion mortar platoon, the battalion FSE and the artillery fire direction center (FDC). The FIST maintains communications with all these elements in the event the battalion headquarters sustains casualties and is unable to control the battle.

The FSO and FSNCO complete the fire support plan, target list worksheet (TLWS) and the fire support execution matrix (FSEM). The FSO then briefs the fire support plan to the company commander before the commander issues the company OPORD.

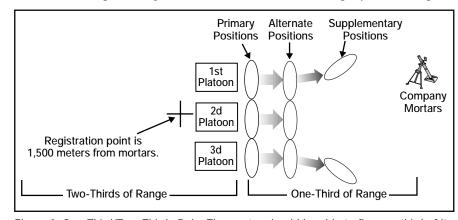


Figure 2: One-Third/Two-Thirds Rule. The mortar should be able to fire one-third of its planning range behind the company position and two-thirds forward of the company position. This technique allows the company to withdraw to the alternate or supplementary positions to be covered by the mortar section without displacing the mortars.

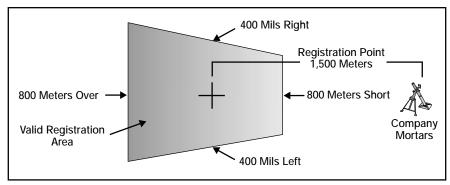


Figure 3: Targets outside the valid registration area require additional registration points, which adjusts the ammunition requests, tasks for mortars and time line.

**8. Issue the OPORD.** The FSO distributes fire support documents to the platoon leaders and briefs the fire support portion of the company OPORD. He briefs the task, purpose, method and effects desired for every target; the observation plan and how it will affect the company; who the primary and alternate observers are; and what event will trigger each target. In the briefing, he explains how requests for indirect fires will be cleared in the company and across the battalion.

The FOs brief their squad leaders on the fire support plan. If an FO is positioned forward early, the FSNCO briefs the FO's squad leaders.

The FSEM is the best tool used to disseminate information to the platoon level. FM 6-20-20 TTP for Fire Support at Battalion Task Force and Below, dated 27 December 1991, explains in detail what should be contained in the company FSEM. The FSO explains the attack guidance, engagement criteria and the high-payoff target list (HPTL), informing the company's key leaders what type of targets will be attacked, when they will be attacked and what assets will engage them.

He also identifies what event shifts the priority of fire to the company or the hand over line. *FM 101-5-1 Operational Terms and Symbols* describes hand-over line as a control feature, preferably along easily identifiable terrain features, at which responsibility for conduct of combat operations is passed from one force to another.

In the briefing, the FSO describes the scheme of fires, assigned EFSTs, the TLWS, and actions to be taken if all senior fire support personnel are lost (FSO, FSNCO and FOs). The FSO also disseminates frequencies and call signs for all assets in support of the battalion, to include Air Force, Navy and Army aviation, so the company can continue

to employ fire support weapon systems if the fire support personnel have become casualties.

The FSO explains the list of fire support coordinating measures (FSCM) and how they will affect the company. He advises the company of when enemy fire support assets are expected to be within range of the company positions and what capabilities the enemy has. If adverse weather is expected, the FSO provides the effects weather could have on fires.

**9. Supervise.** The FSO and FSNCO supervise all fire support preparations. The FSO or FSNCO supervises the adjustment of indirect fire assets in the company sector. All adjustments should be completed during daylight hours.

Adjustments must be accurate due to the close proximity rounds will impact to friendly troops. To minimize endangering friendly forces when adjusting indirect fire, the company troops construct survivability positions as early as possible. A minimum of 18 inches of overhead cover is required to protect troops from 81-mm mortar munitions (*FM 5-103 Survivability*).

A good technique for reducing the impact of adjusting indirect fires close to friendly positions is to incorporate the adjustment time later in the time line. This technique of waiting until the unit has semi-completed its positions allows the maneuver element to continue preparing for the defense outside of the effects pattern of indirect fires while maintaining security in the company area from its fighting positions. Another technique is to use delay fuzes to decrease friendly unit exposure to fragmentation during danger close adjustments.

The FSO then conducts a fire support rehearsal. It involves the FIST and the company mortars, at a minimum. The rehearsal highlights what event causes each observer to trigger each target (in a sequential manner). The FSO can use a vehicle to rehearse triggers for mounted targets.

The FSO walks through fire support during planned displacements from the primary defensive positions to the alternate or supplementary defensive positions. The mortars lay on each mortar target as it is being discussed in the rehearsal.

The FSO then incorporates fire supporters into the company rehearsal. *FM* 101-5 Organization and Operations, Appendix G, gives the details of conducting rehearsals. The FSO ensures the company fire support and maneuver key leaders understand the EFSTs and how these tasks will be accomplished.

During the battle, one technique is for the FSO to operate on the battalion mortar net while the FSNCO monitors and controls observers on the company mortar net. The FSO and FSNCO continuously refine and update changes to the plan required by higher headquarters or subordinate elements until they receive the next mission. The FIST personnel stay prepared to consolidate or reorganize as the main battle passes by the company.

Company fire support personnel use integrated TLP and priorities of work to systematically complete all defensive preparations in a timely manner. By employing these and other techniques routinely in training, fire supporters will be able to provide their maneuver units fast, accurate fires routinely on a high-tempo battlefield.



Sergeant Fire Class Jeffrey A. Mubarak has been a Company Fire Support Observer/ Controller at the Joint Readiness Training Center, Fort Polk, Louisiana, since June 1999. He also served as a Battalion S3 Air NCO, a Battalion Fire Support Sergeant, Company Fire Support Sergeant, Forward Observer and Combat Observation Lasing Team (COLT) Sergeant in the 1st and 2d Battalions of the 319th Field Artillery, and the Long-Range Surveillance Detachment (LRSD), all in the 82d Airborne Division, Fort Bragg, North Carolina. Sergeant Mubarak was a Forward Observer and Company Fire Support Sergeant in the 2d Battalion, 11th Field Artillery, 25th Infantry Division (Light) at Schofield Barracks, Hawaii. Among other schools, he is a graduate of the Field Artillery Advanced NCO Course at the NCO Academy, Fort Sill, Oklahoma; the Joint Firepower Control Course at Hurlburt Field, Florida; and the Naval Gunfire Spotters Course at Little Creek Amphibious Base, Virginia.